ILLUSTRATIONS.

Alexander's Severe Reversing Gase, 287
Alexander's Severe Reversing Gase, 287
Alexander's Severe Reversing Case, 287
Alexander's Severe Reversing Case, 287
Alexander's Severe Reversing Gase, 287
Alexander's Reversing Gase, 287
Alexander's Reversing Gase, 287
Balacer New Process for Casting, 188
Balacer New Process for Casting, 189
Balacer New Process for Severe Revented Research Severe Revented Revers Relating New P CONTRIBUTIONS.

cidents on Railroads from Color-Blindness, 249 Jounts, Operating Expense, 810 Jounts, Rail, Capital and Renewal, 263 Jounts, Uniform, 261, 316, 311, 321, 349, 368 erican Society of Civil Engineers, Conventio Accounts, Rail, Capital and Renewil, 290 Accounts, Uniform, 281, 310, 311, 321, 349, 368 American Society of Civil Engineers, Convention. Atlantic & Great Western Track near Cleveland, 549 Atmospheric Pressure for Elevators, 139 Authorities for the Law of Friction, 256 Bleck's Quieting Chamber, 141 Blue Mountain Line, Fast Freight Trains, 321 Bondholders, Danger to, of Neglecting to Enforce their Rights, 385 Boston & Albany Engine, 87, 107, 123, 141, 142, 169, 169, 212, 251 Bliptical, 168 Bridges, Lattice, Wooden Pins for, 288 Bridges, St., Louis, 377 Bridges, Lattice, Wooden Pins for, 288 Bridges, Wooden Pins in, Yielding of, 349 Buffalo Raliroad Notes, 507 Cape Girardeau, Texas by Way of, 400 Capital Accounts and Renewal Funds, 283 Car-Boring Machines, 220 Car Hand, Philadelphia & Reading, 107 Car Maintenance, 412 Car Safety Chains - What they Have Done, 107 Cars, Drawing-Room, Improved Summer Seat for, 182 Cars, Foreign, Reporting Wheels Removed from, 295

Foreign, Reporting Wheels Removed from, 295 Hand, 17 Liron, Advantages of, 139 Iron, Are they More Economical than Wooden?

Fast Freight Trains by Bite Mountain Line, 3:1
First Coat, 219
Foster Compressed Gas Governor, Diaphragm of, 167
Frandulent Letter Heads.—Look out for Swindlers,
635
with Letter Heads.—Look out for Swindlers,
635
with Letter Heads.—Look out for Swindlers,
635
Friction and Velocity. 213
Friction and Velocity. 213
Friction and Velocity.—Some Experiments, 234
Friction, Authorities for the Law of, 256
Friction, is if Independent of Velocity? 193, 356
Friction, Is if Independent of Velocity? 193, 356
Friction, Law of, and the Westinghouse-Gaiton Experiments, 187
Friction, Morin Experiments, 2:4
Frog. Frint of, 321
Frog. Why it is Called, 219
Gas, Compressed, Foster dovernor for, 167
Gauge, Widening, on Curves, 12
Good Mechanics, 140
Grade, Crossing on, Simple Questions, 281
Grade, Heavy, in North Carolina, 287
Grade and Weeds on Track, 321
Hand Car, One-Wheeled, 124
Hand Car, One-Wheeled, 124
Hand Car, Philadelphia & Reading, 107
Heavy Grade in North Carolina, and How it is
Worked, 280
I-Cycle, 134
Iron Cars, Advantages of, 139
Iron Cars, Advantages of, 139
Iron Cars, Lie of, 63
Isthmus Ship Railroad, Proposed, 469
Jackson Collision, 533
J. L. D. 8 Mogul, 125
Lake Shore Track from Buffalo to Cleveland, 549
Letter Heads, Latest Fraud With, 107

413

Operating Expense Accounts, 310

Paris Exh bition—France—Electricity in Railroad
Engineering, 33, 108, 233

Paris Exhibition—French Locomotives, 79

Paris Exhibition—Some Special Tools, 349

Pass. Eli Perking, 350

Passenger Traffic, Development of Local, 100, 118,

Silde Valve and Link Motion, 1, 33, 97
Southwestern Rate Association and Lumber Rates, 70
Southwestern Rate Association and Lumber Rates, 70
Southwestern Rate Association and Lumber Rates, 70
Southwestern Rate Association and Lumber Rates of the Reports of the

Paris Exhibition—Some Special Tools, 349
Pass, Ell Perkins', 359
Passenger Traffic, Development of Local, 100, 114, 114
Passes Sold at Chicago, 311
Passes Sold at Chicago, 311
Pennsylvania Rullroad Projects, 181, 398
Pennsylvania Rullroad Projects, 181, 398
Pennsylvania Rullroad Projects, 181, 398
Portable Railroad Agenty and Agenty at Paris, 168
Portable Railroad, 470
Philadelphia & Reading Locomotive at Paris, 168
Portable Railroad, 470
Prizes to Road-Masters, 631
Quieting Chamber, Beck's, 411
Rail Accounts Chamber, Beck's, 411
Rail Account - Capital Accounts and Renewal Funds, 288
Railroad Associations, Some Suggestions Relative to, 412
Railroad Combinations, 533
Railroad Malconstruction, 233
Railroad Projects in Pennsylvania, 181
Railroad Returns, Uniform, 388
Railroad Returns, 189
Uniform Railroad Returns, 189
Uniform Railroad Appliances, 265
Texas by Way of Cape Girardeau, 400
Time to Consider, 350
Track, Grass and Weeds on, 321
Trame, S98
Tracks of Valve Silve to Spring the tool Spring the Spring to Spring the Spring to Spring the Spring t

EDITORIALS.

Accidents, About Several Kinds of, 623
Accidents, Draw-Bridge, 593
Accidents, Railroad, Bill to Prevent, 662
Accidents, Rates and Traffic in Germany and New
York, 234
Accident Which Ought Not to Have Happened, 173
Adhesion of a Locomotive, 379
American and Sritish Engineering Societies, 330
American Froduction, 33
American Rassenger Cars, 424
American Rail Consumption, 313
American Rail Foduction, 270
American Hail Froduction, 270
American Bail Foduction, 270
American Society of Civil Engineers, Some Curious
Facts, 358

136

Dy for Dyrac Brakes, Train, 563 Brakes, Train, 563 Brakes, Westinghouse's Latest Improvements in Continuous, 95 Brakes, Train, 564 British Railway Commission, 436 Burlington, Cedar Rapids & Northern Lease, 462, 527 California Railroads, 75 California Railroads, 75 Canada Roads, Plans of, 402 Canadal and Lake Competition, 270 Canal and Lake Competition, 270 Canal Railroads, 664, 4°6 Canal Canal

Accidents, About Several Kinds of, 628
Accidents, Praw-Bridge, 593
Accidents, Railroad, Bill to Prevent, 692
Adhesion of a Locomotive, 579
American Ball Consumption, 313
American Ball Consump

Car-Axie, Master Car-Builders' Standard, 970, 244, 554
Car-Builders' Convention, 340
Car-Couplers, 383
Car, Freight, of the Future, 70
Cars, American Passenger, 423
Cars Bertier, 241
Cars, Heating, 463
Cars, Interchange of, German Regulations, 198
Cars, Iroch, 473
Cars, Interchange of, German Regulations, 198
Cars, Interchange of, German Regu Farming in the Eastern States, Effects of Railroads on, 318
February Earnings, 147, 175
Fire-Boxes Without Water-Spaces, 112
Five-Foot Gauge and the Standard, 366
Flour Rates, 60
Foreign Immigration, 541
Foreign Railroad Notes, F6, 114, 225, 341, 439, 486, 511, 511, 556, 609, 635
Free Passes on the Pennsylvania, 33
Freight Agreement, East-Bound, 32
Freight Agreement, East-Bound, 32
Freight Locomotive of the Future, 58
Freight Locomotive of the Future, 58
Freight Locomotive of Carrying, 116
Freight Movement, 5t. Louis, 186
Freight Movement, 5t. Louis, 186
Freight Pool, East-Bound, 129, 174, 187, 367
Freight Pool, Wost-Bound, 129, 174, 187, 367
Freight Pool, Wost-Bound, 17, 87
Freight Pool, Wost-Bound, 18, 115, 159, 270, 288, 398, 315, 541

Freight Rates, East-Bound, New Basis, 342 Freight Rates, Low Provision, 174

Freight Rates to Missouri River Points, 314
Freight Rates, 8t. Louis West-Bound, 256
French Railroad System, 452
Fresh Beef Exports, 610
Gauge Question, Counsel on, 648, 660, 671
General Passenter & Ticket Agents' Associ Gauge Question, Counsel on, 648, 660, 671
General Passenaer & Ticket Agents' Association, 87, 501.
General Enkelt Agents' Meeting, 159
Georgia Railroad Law, 570
Georgia Railroad, 207
Georgia Railroad, 207
German Locomotive Works, 69
German Post Office Parcel Service, 69
German Railroads, 207
German Locomotive Works, 69
German Railroads, 1877, 511
German Railroads in 1877, 511
German Railroads in 1877, 511
German Railroads, 1877, 511
German Railroads, 1877, 511
German Railroads, 1877, 511
German Regulations for the Interchange of Cars, 1986
German Regulations for the Union Pacific, 32
German Regulations of the Union Pacific, 32
Grain Exports, Russian, 169
Grain Movement, 683
Grain Movement, 683
Grain Movement for Eleven Months, 640
Grain Movement for Eleven Months, 640
Grain Movement, Large, 416
Grain Movement, Large, 416
Grain Movement, Large, 416
Grain Receipts, New York, 28, 422
Grain Receipts, New York, 28, 423
Grain Receipts, New York, 28, 434
Grain Receipts, New York, 28, 435
Grain Receipts, New York, 284
Grain Trunk Western, Western Connections, 335
Grain Trunk Western Connections, 335 Grand Trunk and Great Western, Western Connections, 27.
Grand Trunk Western Connections, 32.
Grand Trunk Western Connections, 32.
Great Western's Future Relations, 52.
Great Western's Future Relations, 52.
Great Western Regenerations, 54.
Great Western Regressitistives, 65.
Harris, The Laste Daniel L., 32.
Harris, The Laste Daniel L., 32.
Hoggand Grand Grands, 50.
Hoggand Grands, 50.
Hoggand Grands, 50.
Hoggand Grands, 50.
Hoggand Grands, 50.
Homestead Eatries of Public Lands, 416.
Hoosac Tunnel, Value of, 32.
How Much Will a Locomotive Pull, 315.
Illinois Central Report, 48.

EDITORIALS.

inois Legislature, Sleeping Car Report, 146 inois & Michigan Canal, 83 migration to the West, 172 iports and Exports, 187 terlecking Signals and Switches, 160, 184 terriational Road-Masters' Association, 187 What Distance Can a Train be stopped by Br imports and Exports, 187
interfecking Signals and Switches, 160, 184
interfational Road-Masters' Association, 187
in What Distance Can a Train be stopped by Brakes, 169
iowas Line, Chicago & Northwestern, 475
iron and Steel Rails in Europe, 48
iron Cars, 47
iron And Steel Rails in Europe, 48
iron Cars, 47
iron Production, American, 188
Jackson Disaster, 555
Jackson Disaster, 555
Jackson Disaster, 555
Jackson Disaster, 556
Jackson Disaster, 556
Jackson Disaster, 557
Jackson Disaster, 558
Jackson Disast

National Railroad Legislation, 510, 569
Navigation, Close of Senson, 698, 659
New York Central Freight Traffic, 630
New York Central Sensenger Rates, 367
New York Central Freight Traffic, 630
New York Central Selemer Line, 6
New York Freight and Other Charges at, 355
New York Grain Receipts, 285, 427
New York Grain Receipts, 285, 427
New York Grain Receipts, 8130
New York Grain Receipts, 8130
New York Railroad, 814
New York Railroad Incorporations, 496
New York Railroad Receipts, 840
New York Railroad Receipts, 840
New York Railroad, 596
Odiclaic Railroad, 596
Odiclaic Railroad, 596
Odiclaic Railroad, 596
Pacific Railroad, 697
Pacific Railroad, 840
Parailel Competing Roads, 397
Passenger Cars, American, 428
Passenger Combination, Trunk Line, 428
Passenger Traffic, Profits of, 173
Passenger Traffic, 490
Profits of an Elevated Railroad, 596
Pacific Railroad Policy, 682
Pennsylvania Railroad Faring, 174, 464, 527
Pennsylvania Railroad, Free Passes on, 33
Pennsylvania Railroad, Free Passes on, 35
Pennsylvania Railroad, Free Passes on, 36
Pernoly Varia Rai

Railroad Construction in 1878, 4, 224, 226
Railroad Construction in 1878, 4, 224, 226
Railroad Construction in 1878, 4, 224, 226
Railroad Enstruction in 1878, 4, 224, 226
Railroad Enstruction in 1878, 4, 224, 226
Railroad Enstruction in 1878, 4, 224, 226
Railroad Enstruction, West Virginia, 144
Railroad England, west Virginia, 144
Railroad England, west Virginia, 144
Railroad England, west Virginia, 144
Railroad Railroad Railroad, 1878
R

NEW PUBLICATIONS.

Accidents, Adams' Notes on, 589
Adams, Charles Francis, Jr.'s Notes on Accidents,
Adams' Notes on, 589
Adams, Charles Francis, Jr.'s Notes on Accidents,
Adams' Notes on, 589
Adams, Charles Francis, Jr.'s Notes on Accidents,
American Geological Railway Guide, 61
Georgia Railroad Rules and Regulations, 464
Georgia Railroad, 467
Bankers' Alimana, 190
Bankers' Alimana, 190
Bonney's Railway Law for Railway Men, 48
Experiences, 160
Macfarlane's American Geological Railway Guide, 61
Maintenance of Way, Rules and Specifications, 404
Mason Machine Works, Catalogue of Narrow Gauge
Georgia Railroad, 467
Maintenance of Way, Rules and Specifications, 404
Mason Machine Works, Catalogue of Narrow Gauge
Georgia Railway Law of Emiment Domain, 487
Mason Machine Works, Catalogue of Narrow Gauge
Mason Machine Works, Catalogue of Narrow Gauge
Gerena's Trusses and Arches, 21
Jouis Law of Emiment Domain, 487
Trusses and Arches, 22
Taylor from Works Diary for 1879, 48
Mason Machine Works, Catalogue of Narrow Gauge
Mason Machine

ELECTIONS AND APPOINTMENTS.

Adirondack, 381 Alabama Great Southern, 103 Alexandria & Fredericksburg, 148 Allegheny Valley, 391, 243 Alton & St. Louis, 391 Amador Branch, 430 American Iron & Steel Association, 148 American Society of Civil Engineers, 88, 176, 558, 572 American Society of Civil Engineers, 88, 176, 558, 573
American Steamship Co., 201
Anderson, Lebanon & St. Louis, 73, 513
Animas & Uncompahgre, 513
Annapolis & Elik Ridge, 9
Arkansas Valley Town Co., 288
Ashleid, Valley Town Co., 288
Ashleid, 188
Ashleid, 198
Ashleid, 198
Ashleid, 198
Atchison & Pittsburgh, 201, 215
Ashleid, 198
Atchison & Winnemucca, 418
Atchison & Denver, 30
Atchison, Jewell County & Weston, 390
Atchison, Minneapolis & Saline Valley, 597
Atchison & Nebraska, 133, 176, 372, 043, 558
Atchison, K., Joseph & Northern, 697
Atchison, Topeka & Santa Fe, 118, 133, 161, 267, 288, 543 Acthison, Topeka & Santa Fe, 118, 183, 161, 257, 288, 543
Atchison Union Depot Co., 35
Atchison Union Depot Co., 36
Atchison West Point, 430
Atchison West Point, 430
Atchison West Point, 430
Atchison West Point, 430
Atlantic & Great Western, 528
Atlantic & Pacific Telegraph, 243, 418
Atlantic, Red Oak & St. Louis, 358
Attica, Covington & Seuthern, 643
Attica, Covington & Seuthern, 643
Bachman Valley, 73
Backennan Valley, 73
Baggagaren's Mutual Aid & Benefit Association, 534
Backennan Valley, 73
Baltimore & Chicago, 637
Baltimore & Delta, 369
Baltimore & Delta, 369
Baltimore & Ohio & Chicago, 201
Baltimore, Pittsburgh & Chicago, 261
Baltimore, Pittsburgh & Chicago, 637
Baltimore, Pittsburgh & Chicago, 683
Baltimore & Potomac, 148, 372, 316
Bayview, Little Traverse & Mackinaw, 258
Bedford, Springville, 610
Bellafer & St., Clairsville, 610
Bellafer & St., Chairsville, 610 Bayview, Little Traverse & Mackinaw, 258
Bedford, Springville, Owensboro & Bloomfield, 26
845
Bellare & St. Clairsville, 610
Bellaire & St. Clairsville, 610
Bellaire & Southwestern, 558
Belleville & North Hastings, 148
Beston & Hasny, 88, 118, 651
Boston & Hisan, 88, 118, 651
Boston, Barre & Gardiner, 35, 165, 268, 548
Boston, Hoosac Tunnel & Western, 201, 610, 673
Boston, Hoosac Tunnel & Western, 201, 610, 673
Boston & Marine, 357, 673
Boston & Maystic Valley, 30
Boston & New York Air Line, 258, 316
Boston & Western & Hall, 118
Brooklyn & Coney Island Central, 327
Brotherhood of Locomotive Firemen, 5.71
Brownsville & New Haven, 268
Brotherhood of Locomotive Firemen, 5.72
Brotherhood of Locomotive Firemen, 5.73, 590
Buffalo, New York & Philadelphia, 35, 648
Buffalo & Southwestern, 685
Burfington & Lamoille, 440, 685
Burlington & Missouri River in Nebraska, 30, 161

ELECTIONS AND

Burlington, Monmouth & Illinois River, 454
Cairo & St. Louis, 30, 188
Cairo & Vincennes, 397
California Pacific, 439
California Pacific, 439
California Ratiroad Commission, 487
Camden & Atlantic, 384
Canada Southern, 161, 188, 201, 316, 327, 358, 389, 528
Canada Southern, 161, 188, 201, 316, 327, 358, 389, 528
Canada Southern, 161, 188, 201, 316, 327, 358, 389, 528
Canada Southern, 161, 188, 201, 316, 327, 358, 389, 528
Canada Southern, 161, 188, 201, 316, 327, 358, 369, 528
Canada Southern, 350
Canada Central, 538
Canada Southern, 360
Canada Central, 538
Catawissa, 258
Cedar Rapids, Sigourney & Ottumwa, 300
Central Hahis, 513
Cettral Parach, Union Pacific, 30, 316, 465
Central Parach, Union Pacific, 30, 316, 465
Central Parach, Union Pacific, 30, 316, 465
Central, ovia, 376, 316, 358, 597
Central, ovia, 376, 316, 358, 597
Central, ovia, 376, 316, 358, 597
Central Pacific, 188, 406, 439, 478
Central Pacific, 28, 408, 410
Champalgu, Havana & Western, 163, 272
Charlotte, Columbia & Augusta, 35, 201, 651
Charlotte, Columbia & Augusta, 35, 201, 651
Charlotte, Columbia & Augusta, 35, 201, 651
Charlotte, Columbia & Columbia, 316
Chesapeake & Dhio Canal, 316
Chesapeake & Dhio Canal, 316
Chesapeake & Dhio Canal, 316
Chesapeake & Ohio, 36, 183, 201, 314, 447, 572, 673
Chicago & Blouk Coal, 381, 476
Chicago & Brillinton & Guiney, 9, 20, 50, 103, 161, 176.
Dicheago & Danda Southern, 327, 338
Chicago, Gurinan, Dubuque & Minnesota, 148, 518
Chicago, Burlington & Guiney, 9, 20, 50, 103, 161, 176.
Dicheago & Canada Southern, 321
Chicago & Canada Southern, 323
Chicago, Pekin & Southweste

Eureka & Palisade, 390
Evansville & Esatern, 513
Evansville & Gestern, 513
Evansville & Seymour, 502
Evansville & Seymour, 504
Fail River, 128
Fail River, 128
Filchburg, 62
Filchburg, 63
F

ELECTIONS AND APPOINTMENTS.

ods, truc-636 issis nten-

1, 543.

la), 39ki 9 502

30, 454 76

THE RAILROAD GAZETTE.—Index.

| The property of the property o

PERSONAL.

Abbott, Frank, 544, 611
Abbott, Josiah, 598
Adams, Charles Francis, Jr., 21
Allen, Thomas, 328
Anderson, A., 584
Angell, Charles W., 21, 118, 183
Atmore, C. P., 63
Ball, James, 588
Ballard, Charles H., 258
Ballard, Charles H., 258
Barker, Wharton, 44
Barnard, J. F., 243
Barnard, J. F., 258
Benedict, 6corge, 316
Barnett, Samuel, 572
Barron, Charles F., 440
Bartlett, M. F., 258
Benedict, 6corge, 316
Barnett, W. H., 651
Barnett, W. W., 514
Boutwell, George S., 318
Blanchard, J. W., 88
Blanchard, J. W., 88
Bloud, Wm., 300
Borst, W. W., 514
Boutwell, George S., 31
Breed, G. C., 65
Freed, G. C., 65
Britton, Wm., 418
Brooke, Edward, 9
Britton, Wm., 418
Brooke, Edward, 9
Britton, Wm., 418
Brooke, Edward, 9
Brown, W. G., 36
Brewn, M. G., 36
Brown, W. G., 36
Brown, W. G., 36
Brown, W. G., 36
Brown, M. G., 36
Brown, W. G., 36
Brown, M. G., 36
Burrough, S. R., 98
Burrough, S. R., 98
Burrough, S. R., 98
Cady, Col. Henry, 30
Cammell, Charles, 74

Campbell, Samuel, 272
Cane, J. S., 338
Carhart, Samuel, 273
Carnichael, Daniel, S8
Carmichael, Daniel, S8
Carmichael, Daniel, S8
Carpenter, Williard, 36
Chandler, A. J., 611
Chanic, Octave, 441
Chapin, Chester W., 628
Chapman, George D., 88, 108
Chestro, Dudley R., 316
Children, Hugh C. E., 465
Chittenden, J., 439
Clark, Charles P., 465
Clark, Oseph, 300
Clark, J. T., 176
Clark, Charles P., 465
Clark, Thomas, 441
Cemons, Everett, 528
Cobb, Albert W., 315
Colburn, Warren, 514
Colbur, Warren, 514
Colbur, Warren, 514
Colbur, Warren, 514
Colbur, Warren, 501
Colburn, J. E., 585
Cum ulnas, Hilly, 588
Cum ulnas, Hilly, 588
Cum ulnas, Hilly, 588
Derbyshire, Alexander J., 189
Devereux, J. H., 9
Dillon, Judge John H., 300
Dix, Gen, John A., 239
Dodamead, Thomas, 468
Dodge, D. C., 163
Downs, W. F., 9, 683
Drew, Daniel, 511
Drinker, Henry S., 683
Drew, Daniel, 511

Eastwick, Andrew M., 88
Eckert, T. T., 143, 216
Edwards, John, 216
Elliott, A. Footer, 229
Everett, R. D., 21
Farnum, Henry Harrison, 572
Faulterey, T. F., 506
Fellows, E. C., 496
Field, Cyrus W., 488
Fish, Benjamin, 148
Fieagle, Nicholas N., 272
Finite, S. Sanger, 148
Fieagle, Nicholas N., 272
Finite, S. Sanger, 148
Fieagle, Nicholas N., 272
Finite, S. Sanger, 148
Field, Cyrus W., 488
Fish, Benjamin, 148
Frazee, Sanuel E., 514
Furman, George W., 358
Fox, Charles, 502
Frazee, Sanuel E., 514
Furman, George W., 358
Fox, Charles, 502
Garett, R. M., 300
Gawne, William, 148
Geiger, R. W., 441
Gibbe, E. B., 419
Gittings, John S., 663
Goodd, Jannes, 552
Goudd, Jannes, 552
Goudd, Jannes, 552
Goudd, Jannes, 552
Grey, F. D., 556
Grand, President, 300
Green, Henry, 522
Grey, F. D., 556
Griswold, John N. A., 328
Hall, Henry, 162
Harris, Daniel L., 100, 389, 404, 407
Harris, Robert L., 21
Havens, Nathaniel, 441
Hays, Rev. Dr. George P., 9, 189
Heafford, George H. 118, 162

Healey, M. A., 381
Hecker, Frank J., 511
Henning, B. S., 301, 214
Henping, B. S., 301, 214
Hepburn, C. J., 440, 441, 528
Hewitt, Charles, 508
Heywood, Charles L., 502
Hobart, Garrett A., 598
Hobart, J. W., 502
Hodgakin, James Black, 174, 177
Holmes, N. M., 598
Hopkins, A. L., 590, 488
Hopkins, Mark, 568
Hopkins, Mark, 568
Hopkins, Mark, 568
Hopkins, Mark, 568
Howard, Charles, 399
Howe, George E., 598
Howard, Charles, 399
Howe, George E., 598
Howard, Charles, 399
Howe, George E., 598
Howard, Asahel W., 544
Hunt, J. W., 172
Jackman, John A., 38
Jackman, John A., 58
Jackma

PERSONAL.

rd, Wm., 216
cas, D. Jones, L. 216
cas, D. Jones, L. 216
man, Luke, 508
cCallium, Gen. Daniel Craig, 9
cCulloh, James, 409
cFadden, Charles G. 273
cFadden, Charles G. 273
cCulloh, James, 408
cFadden, Charles G. 273
cCulloh, James, 408
cFadden, Charles G. 273
cCulloh, 651
labi, Wm., 661
labi, J. 275
labi, J. 275 Muir, W. K. 21 Needham, Charles K., 88 Norton, John V., 179 Oakes, T. F., 186 Oakman, W. G., 243 O'Nelll, Adam, 21 Osborne, Charles Francis, 502 Otts, W.m., 558 Otts, W.m., 558

PERS

Olyphant, F. H., 626
Packer, Asa, 278, 287, 289, 295, 300, 387
Palmer, John B., 644
Parker, Wm., 502
Parks, Robert, 179
Parsons, Samuel, 381
Partridge, E., 231
Patterson, D. P., 381
Patterson, D. P., 381
Patterson, D. P., 381
Peabody, F. H., 289
Pease, P., 572
Peck, Charles A., 62
Perchiel, T., 616
Perklins, Estra J., 74
Perklins, Estra J., 74
Prester, R., 391
Phillips, E. B., 243
Pitton, James, 528
Potter, Nathan D., 391
Pottinger, D., 74
Prester, Rudolph, P., 572
Quetil, Churles J., 229
Randolph, F. F., 430
Randolph, F. F., 430
Randolph, F. F., 430
Redington, George G., 182
Redmond, Thomas, 9
Rhodes, Godfrey W., 243
Ricker, R. E., 189
Roberts, Solomon W., 345
Roberts, Rolomon W., 345
Roberts, Roberts, Rolomon W., 345
Roberts, Rolomon W., 345
Roberts, Rolomon W., 345
Roberts, Roberts, Rolomon W., 345
Roberts, Rolomon W., 345
Roberts, Rolomon W., 345
Roberts, Roberts,

Sayre, Robert H., 229
Schleicher, Gustav. 36
Scott, Horace, 476, 544
Scott, Thomas A., 369, 488
Scaly, John, 278
Setchel, J. H., 201
Sewell, W. J., 36
Seymour, Horatio, Jr., 502
Shaler, James R., 488
Sheppard, Henry, 454
Sherman, Charles Taylor, 21
Shina, Wm. P., 514
Shoemaker, R. H., 684
Shoemaker, R. H., 684
Shoemaker, R. H., 684
Shoemaker, R. H., 683
Shoemaker, R. H., 683
Shoemaker, R. H., 684
Shoemaker, R. H., 685
Shoemaker, R. H.,

Thornburg, W. L., 528
Townsend, S. Sharpless, 68
Trowbridge, H. H., 511
Trowbridge, H. H., 511
Tryler, Sir Henry W. 273, 673
Litt, John E., 162
Vail, D. Thomas, 74, 118
Van Aistyne, F. S., 598
Vanatta, Jacob, 243
Van Brunt, John, 358
Vanderbilt, Wm. H., 289, 345, 441
Vickers, George, 558
Wadley, Wm. M., 558
Wadley, Wm. M., 558
Walley, Campbell, 572
Wallace, Campbell, 572
Wallace, Campbell, 572
Wallace, Edward W., 162
Ward, C. F., 459
Wallace, Campbell, 572
Wallace, Edward W., 162
Ward, C. F., 459
Wallace, Lampell, 572
Wallace, Edward W., 162
Ward, C. F., 459
Wallace, Edward W., 164
Warren, A. K., 176
Wassburn, Edward S., 330
Wasbburn, Hiram, 88
Wendell, Charles, 369
Westinghouse, George, Jr., 430, 441
Wells, Renbeit, 508, 388
Westinghouse, George, Jr., 430, 441
Wilsims, Henry, 153
Williams, Henry, 153
Williams, L., 289, 300
Williams, Henry, 153
Williams, L., 289, 300
Williams, H., 144
Wiswell, George T., 514
Wright, G. B., 289
Wright, Gen. George B., 454
Wright, Robert Clinton, 526

TRAPFICAND

TRAFFIC AND EARNINGS.

West Jersey, 103, 288 Western Pennsylvania, Coal, 50, 80, 149, 202, 273, 328, 382, 441, 489, 544, 611, 657

Winona & St. Peter, 558 Wisconsin Lumber Line, 638

Wisconsin Valley, 116, 572, 583, 611, 697 Worthington & Sioux Falls, 74, 288, 558

ANNUAL REPORTS.

Adiroudack, 518
Alexandria & Washington, 468
Atchison & Nebraska, 395
Atchison, Topeka & Santa Fe, 277
Atlanta & Charlote Air Line, 204
Atchison & Great Western, 172, 179
Atlantic, Mississippi & Ohio, 342
Baltimore & Ohio, 629, 638
Baltimore & Ottomac, 382
Baltimore & Potomac, 382
Baltimore & Potomac, 382
Baltimore & Potomac, 382
Baston & Elbann, 78, 602, 446
Boston & Albann, 78, 602, 446
Boston & Chocard & Montreal, 382
Boston & Lowell, 40
Boston & Honoreal, 382
Boston & Lowell, 40
Boston & Providence, 642
Boston & Providence, 642
Boston & Providence, 642
Boston, Winthrop & Pl. Shirley, 446
Bright Hope, 468
Brooklyn, Bath & Coney Island, 518
Brooklyn, Flatuah & Coney Island, 518
Brooklyn, Flatuah & Coney Island, 518
Brooklyn, Flatuah & Coney Island, 518
Brooklyn & Rockaway Beach, 518
Buffalo & Southwestern, 518
Cairo & Vincennes, 430
Camo & Southwestern, 518
Cairo & Vincennes, 430
Camo & Southwestern, 518
Cayuga & Susquehann, 518
Cayuga & Susquehann, 518
Cayuga & Susquehann, 518
Cayuga Susquehann, 518
Cayuga & Su incinnati, Larayette & Chicago, 34%. Incinnati, & Muszingum Valley (See P., C. & St. L.), incinnati, & Muszingum Valley (See P., C. & St. L.), incinnati, & Sandusky & Cleveland, 614 leveland, Columbus, Cincinnati, & Indianapolis, 166 leveland, Mt. Vernon & Delaware, 491 leveland, Pittsburgh, 218 leveland, Tuscarawas Valley & Wheeling, 218 leveland, Tuscarawas Valley & Wheeling, 218 clove Branch, 518 love Branch, 518 love Branch, 518 love Branch, 518 love Branch, 518 loumbus, Chicago & Indiana Central (See P., C. & St. L.), 252 looned & Claremont, 422 looned & Claremont, 422 looned & Claremont, 422 loonecticut Minor kaliroads, 492 loonecticut Minor kaliroads, 492 loonecticut River, 66, 692 loonecticut Valley, 492 loonecticut Western, 492 loo

A N N U A L F

Cooperstown & Susquehanna Valley, 518
Corning, Cowanesque & Antrim, 518
Coroled Creek, 438
Dakota Southern, 466
Danbury & Norwalk, 492
Davenport & Nortwestern, 466
Danbury & Norwalk, 492
Davenport & Nortwestern, 468
Decatur, Mattoon & Southern, 469
Delaware, 54
Delaware, 54
Delaware, 54
Delaware & Hudson Canal, 276
Delaware & Hudson Canal, 278
Des Moines & Mineapolis, 409
Des Moines & Carondelet, 490
Eastern, 152, 606
East Ten. 152, 607
Eastern, 152, 607
Eastern, 152, 607
Eastern, 158
Evansville, Terre Haute & Chicago, 480
Ferl Rilver, 446
Ferro Monte, 575
Freehold & New York, 575
Freehold & New York, 575
Galena & Sayre, 518
Fond du Lae, Amboy & Peorla, 306
Freehold & New York, 575
Galena & Sayre, 518
Georgia, 304
Grand Tower, 480
Grand Tower,

Wisconsin Lumber Line, 688

REPORTS.

Maine Quetral, 179

Manne Minor Bairwoods, 548

Marchaetts & Cincinnati, 698

Marquete, Houghton & Ontomagon, 369

Maschaetts Minor Railroads, 446

Maschaetts Minor Railroads, 446

Maschaetts Minor Railroads, 446

Manneachaetts Minor Railroads, 446

Minoral-Point, 569

Minoral-Point

A coldent Cases, Evidence in, 638

Accident, Landilty to Another Company for Damages by, 391

agent biaking Unfounded Arrest, 587
Aid to Raitroads in Minnesota, 633

Approaches to Depot, 442

Arrest, Unfounded, Agent Making, 537

Assessment Law, Lowa, 437

Assessment of Haggage in Transit, 104

B. aggage, Attachment of, in Transit, 104

B. aggage, Attachment of, in Transit, 104

B. aggage, Loss of, on Connecting Road, 274

Baggage, Loss of, on Connecting Road, 274

Baggage, Traveler's, 388

Baggage, Traveler's, 388

Baggage, Traveler's, 388

Baggage, Traveler's, 389

Bin of Lading—Acceptance of Conditions, 466

B. in of Lading—Acceptance of Conditions, 466

B. in of Lading—Acceptance of Conditions, 466

Carrier, Presumption of Needig-nee in, 74

Carrier's, Lability of—Special Notice, 449

Carrier's Liability of—Special Notice, 449

Carrier's Liability of—Special Notice, 489

Carrier's Liability, Limiting, 539

Carrier's Liability, Jimiting, 539

Carrier's Liability, Limiting, 539

Carrier's Liability, Limiting, 539

Carrier's Liability, Limiting, 539

Carrier's Liability, Special Contract, 312

Condon Carrier—Special Contract, 312

Common Carrier—Special Contract, 317

Condemning Land, 454

Connecting Road, Loss of Baggage on, 274

Connecting Road, Loss of Baggage on, 2 Delay, Law of, 401
Depot, Approaches to, 442
Directors as Contractors, 339
Directors Labulity—Fraudulent Contract, 45
Directors as Francisco, 339
Directors as Trustees, 359
Doctors Bills, Labulity for, 469
Duties and Obligations of Mortgagor—Conditions of
Mortgage, 317
Duties of Trustee, 442

8

01..

19

th-

Easement—Limitation by Use, 477
Employe, Injury, to—Negligence, 134
One Company, 197
Employes, Vages in Texas, 274
Employes, Wages in Texas, 274
Employes, Vages in Texas, 274
Employes, Wages in Texas, 274
Employes, Ast Constitution, 275
Employes, Conditions of Sill Used for the Road, 460
Expression of Companies in, 683
Fright Lines, Parthership of Companies in, 683
Freight Lines, Parthership of Comp

MISCELLANEOUS.

Accident and Superannuation Funds, 119
Accident, Notes on, 582
Accidents, Rules for Inquiring Into, 496
Accidents, Rules for Inquiring Into, 496
Accidents to Employes, Causes of, 598
Accounts and Returns, Uniform, 251, 265
Across the Coutlent Under a Car, 222
Adams, Charles Francis, Jr., Resignation, 15
Advertising Ticket-Holder, 177
American Institute of Mining Engineers, 60
American Instruments for Russia, 268
American Instruments for Russia, 268
American Railroads, Englishman's Opinion of, 203
American Railroads, Englishman's Opinion of, 203
American Society of Civil Engineers, 215, 257

Axles and Wheels, Master Mechanics' Report, 282 Axles, Standard, Master Mechanics' Report, 271 Baggage-Mistress, 163 Baggage, Travelers', 188 Ballast Unloader, 451 Baltimore Water Works Tunnel, 274

American Steel Ralls, Wearing Qualities of, 608
Appeals from the People, 657
Asiatic Wilderness, Trains of Cara Rotting in, 64
Atlantic & Great Western, Wear of Steel Raits on,
306
Auto-Lith Printer, 607
Axles and Wheels, Master Mechanica' Report, 221
Axles, Standard, Master Mechanica' Report, 271
Baggage-Mistress, 163
Baggage-Transfers in Boston, 413
Baggage-Transfers in Boston, 413
Baggage-Transfers' and Boston, 413
Boston Boston, 413
Ballant Unloader, 451
Boller Construction, 369, 973, 385

Boiler, Passenger Locomotive, 268
Boilers, Circular on, 16
Boilers, Circular on, 16
Boilers, Circular on, 16
Boilers, Circular on, 16
Borlon, 16
Borlon, 16
Borlon, 16
Boston Englage, 17
Boston Society of Civil Engineers and the Me System, 359
Boston Society of Civil Engineers and the Me System, 359
Boston Ticket Scalper, 51
Brakeman, Active, 389
Brakeman Must Not Fiirt, 392
Brake Patent, Thompson & Bachelder, 245
Brakes, Continuous, for Freight Trains, 169, 259
Brakes, Continuous, in the United Kingdom, 37 ers and the Metric

MISCELLANEOUS.

Brakes, Train, for Freight Cars, 363
Brakes, Train, for Freight Cars, 363
Brake Suits, Tanner, 377
Braile, Suits, Tanner, 377
Braile, Suits, Tanner, 377
Braile, Railroadis of, 509
Bridge Accident, Selma, Rome & Daiton, 157
Bridge Matchent Breer, 592
Bridge Guards, 387
Bridge Mathematics, 217
Bridge Over Missouri River at Flattsamonth, 583
Bridge, Guick Work with, 295
Bridge, Baising a, 217
Bridge, Bron, Safety Floor for, 423
Bridges, Iron, Specification for, 176
Bridge, Tron, Safety Floor for, 423
Bridges, Iron, Specification for, 176
Bridge Mathematics, 217
Bridges, Iron, Safety Floor for, 423
Bridges, Iron, Specification for, 176
Bridge Mathematics, 217
Bridges, Bron, Specification for, 176
Bridge, Mathematics, 217
Bridges, Bron, Specification for, 176
Bridge, Mathematics, 217
Bridges, Iron, Specification for, 176
Bridge, Mathematics, 217
Bridges, Bron, Specification for, 176
Bridges, Iron, Specification for, 178
Bridge, Mathematics, 217
Bridges, Bron, Specification for, 178
Butt Jolnis, 420
Grandian Bray, 178
Butt Jolnis, 420
Grandian Bray, 188
Cannida, Swotzer, 278
Butt Jolnis, 420
Grandian Bray, 188
Cannida, Swotzer, 278
Butt Jolnis, 420
Grandian Bray, 189
Cannida, Swotzer, 278
Butt Jolnis, 420
Grandian Bray, 189
Cannida, Swotzer, 278
Butt Jolnis, 420
Grandian Bray, 189
Cannida, Swotzer, 278
Butt Jolnis, 420
Grandian Bray, 189
Cannida, Swotzer, 278
Butt Jolnis, 420
Grandian Bray, 189
Cannida, Swotzer, 278
Butt Jolnis, 420
Grandian Bray, 189
Cannida, Swotzer, 278
Butt Jolnis, 420
Grandian Bray, 189
Cannida, Swotzer, 278
Butt Jolnis, 420
Grandian Bray, 189
Cannida, Swotzer, 278
Cannida, Swo 92 Car-Wheel Report, Pittsburgh, Cincinnati & St. Louis, 170 Car, Worcester Excursion, 274 an-wheel Report, Pittsburgh, Cincinnati & St.
Louis, 170
ar, Worcester Excursion, 274
attalpa Tree, 399
attle on the Track, 163
hashing beer by Rail, 697
hashing beer by Rail, 697
hest Protectors, 559
litelago Elevator, New, 639
litelago Elevator, New, 639
litelanati Southern Egulpment Contracts, 443
lose Race, 53
lose Race, 53
dor Bilindness and Examinations to Detect it, 59,
445, 545
olor Bilindness in Railroad Men, 301
omplicated Case, 477
omplitelate in Court, 359 Clove Race, 526
Color Blindness and Examinations to Detect 14, 59, Color Blindness and Examinations to Detect 14, 59, Color Blindness in Railroad Men, 301
Complicated Case, 477
Complinents in Court. 359
Conductor, Oidest, 431
Complicated Case, 477
Complinents in Court. 359
Conductor's Windfall, 639
Congress and Inter State Commerce, 67
Continuous Journey, 74
Contract, Profitable, 10
Couldn't Scare Him. 579
Cross-Braces, 546
Curious Accidents, 548, 573
Curious Scape, 223
Curious Accidents, 548, 573
Curious Bacape, 223
Curious Bacape, 223
Curious Bacape, 223
Curious Accidents, 548, 573
Curious Bacape, 223
Curious Accidents, 548
Daylon Cam Pump, 678
Dead Weight, 477
Delay, Law of, 461
Dead Weight, 477
Delay, Law of, 461
Death Carnello, 577
Delay, Law of, 461
Death Carnello, 577
Delay, Law of, 461
Death Carnello, 578
Dowling's Earth Plow, 349
Death Carnello, 578
Dowling's Earth Plow, 349
East Bound Freight, Trunk Line Pool, 417
East Bound Freight, Trunk Line Pool, 417
East Bound Rates, New Table for Computing, 336
Earth-Plow, Dowling's, 249
East Bound Rates, New Table for Computing, 338
East River Bridge Bids, 332
Earth-Plow, Dowling's, 249
East Bound Rates, New Table for Computing, 338
East River Bridge Bids, 339
Earth-Plow, 349
East Blound Rates, New Table for Computing, 338
East River Bridge Bids, 339
Earth-Plow, 349
East Blound Rates, New Table for Computing, 338
East Bound Rates, New Table for Computing, 338
East Blound Rates, New Table for Computing, 338
East Blound Rates, New Table for Computing, 338
Eaglain Trade Curiou of Railroad Men, 126
English England, Accident and Superannuation Funds, 110
English England, Accident and Superannuation Funds, 110
English England, Accident a

Ja cohestic Charges and Transportation Charges. By
Serbergiotina Haysen and the Boston Roclety of Civil Br.
Serbergiotina Haysen and the Boston Roclety of Civil Br.
Serbergiotina Haysen and Haysen and the Bost on Section Haysen and the Bost on Section Haysen and Section Haysen a Description and required of Project (Care, 11)

From Through a Try to Jan. 26, 124

From Land State of the Company of the Comp Uniform Reports and Accounts, 237, 251, 295
Union Pacific, Government Directors', 15
Union Pacific, Government Directors' Report, 14, 25
Union Pacific, Government Directors' Report, 14, 25
Union Pacific Railroad, Relations with the Public
United States Association of Charcoal Iron Workers
and Other Bailroads, 14
Uniteky Trip, 370
Unpleasant Traveling Companions, 301
Vacuum Brakes, Noise from, 177
Van Lieuw's Improved Grain Door, 411
Vanderbilt, Mr., Explanation, 630
Vanderbilt, Mr., Explanation, 630
Vanderbilt, President, and Sir Heary Tyler, 436
Vanderbilt, President, and Sir Heary Tyler, 436
Vanderbilt, Mr., Explanation, 630
Wages of Employes in India, 90
Watham Collision, Report on, 477
Wanted His Bed Made up, 477
Washers, 359
Waster, 301, 318
Western Railroad Association, 44
Western Railroad Association, 14
Western Railroad Association, Tests of Improvements by, 171.
Westinghouse Brake on the Central of New Jersey

Wisconsin Railroads in 1878, 79 Woman Who Was Posted, 639

MISCELLANEOUS.

Worcester Excursion Car, 274 World's Time, 669

Wrong Valise, 657 Yard and Train-Men, Safety to, 215

GENERAL RAILROAD NEWS.

977, 357 102

ork

4, 25 tblic

r Me-

MISCHELLE LANDOUS S.

STORY HOLD STATE AND COLUMN S.

STORY HO

GENERAL RAILROAD NEWS.

561 Wissouri, Kansas & Texas, 11, 76, 120, 302, 363, 444, 490, 530, 574, 640, 673 Wissouri & Niobrara Valley, 217 Wissouri Pacific, 11, 331, 363, 443, 516, 627, 633, 604, 676 National, 362, 319, 486, 531, 586, 690, 640
Nashua & Lowell, 302, 319, 486, 531, 586, 690, 640
Nashulle & Florence, 190, 310, 613
Nashville & Florence, 190, 310, 613
Nashville & Tuscaloosa, 91, 246, 371, 490, 613
Natchez, Jackson & Columbus, 7, 74, 2-7
National, 383, 663
National, 383, 663
National, 583, 663
National Bord of Trade, 673
Naugatuck, 120, 360, 444, 686
Naugatuck, 120, 360, 444, 686
Naugatuck, 120, 360, 444, 686

Northern (New Hampshire), 319
Northern Trensit Co., 105
North Pennsylvania, 347
North Pennsylvania, 347
North Pennsylvania, 347
North Pennsylvania, 347
North & South, of Georgia, 409, 413
North & South, of Georgia, 409, 413
North & South, of Georgia, 409, 413
North Wisconsin, 7, 104, 218, 227, 381
Nortway Branch, 204, 5-86
Norwich & Worcester, 409, 257
Ogdensburg & Lake Champiain, 613
Ocmurgee & Horse Creek, 7, 227
Ogdensburg & Lake Champiain, 678, 302, 586, 601, 666

THE RALEOAD GAZETTE_LIDGE.

| Control of Control of

